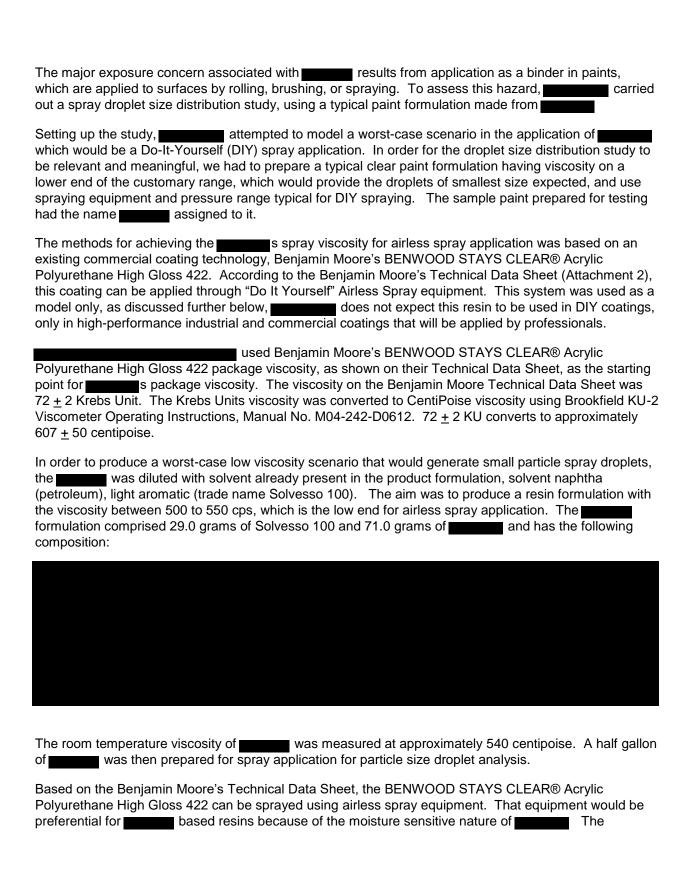


The new chemical substance (NCS), known as substance is synthesized by reaction of
. The resulting polymer is a solution of a resin in
a mixture of solvent naphtha (petroleum), light aromatic, and butyl acetate. It contains trimethoxysilyl groups.
had a presubmission meeting with EPA on the case was assigned prenotice communication number. One of the issues discussed was possible categories of concern applicable to Three categories of concern were considered:
 Alkoxysilanes Waterproofing agents, silanes subcategory Polymer lung overload
To address applicability of waterproofing agents' category to performed capillary surface tension test on this product. The results are shown in Attachment 1.
Surface tension properties of silicone resin, 0.5 wt. % in water, were tested on a Kruss K100 Force Tensiometer, using the plate method. The sample of was not completely soluble in water after 1 hour of mixing at room temperature—in addition to a thin layer of the solvent on the top, a separate heavy droplets formed on the bottom of the mixture, and the aqueous phase was opaque.
The surface tension of the sample was determined as 49.50 Dynes/cm, which is less than the surface tension of water, 72 Dynes/cm. As waterproofing agents <i>increase</i> the surface tension of water, is not a waterproofing agent.
Conversely, the observed reduction of the water surface tension is not large enough to consider a potential surfactant. The definition of "organic surface-active agents" is given in the Harmonized Tariff Schedule of the United States (2010), Chapter 34, as follows:
For the purposes of heading 3402, "organic surface-active agents" are products which when mixed with water at a concentration of 0.5 percent at 20°C and left to stand for one hour at the same temperature:
(a) Give a transparent or translucent liquid or stable emulsion without separation of insoluble matter; and (b) Reduce the surface tension of water to 4.5 x 10-2 N/m (45 dyne/cm) or less.
Viewed against the definition, is not a surface-active (surfactant) agent—it fails on both criteria.
Regarding polymer lung overload, the definition given in the EPA draft guidance refers to high molecular weight materials typically formed through a free-radical polymerization process, and all examples from the draft guidance are solids. As is neither, it does not belong to polymer lung overload category.
Thus, in principle opinion, the only category of concern applicable to the salkoxysilanes.



recommended Fluid Pressure was between 1,500 to 2,000 psi and the recommended tip orifice was between 0.011 and 0.015 inches.

The testing of was done by the Spray Analytics Inc. Laboratory, using Malvern Sparytec laser diffraction system MAL1055256. The full report is enclosed as Attachment 3.

Spray Analytics used a Graco Medium Duty Paint Sprayer, available from Home Depot for airless spraying; two recommended spraying nozzles, 515 (larger) and 411 (smaller), and three pressure settings at 1,600 psi, 2,100 psi, and 2,600 psi (low, medium, and high).

The results are discussed in the report. Several important outcomes are:

- 1. Droplet size distribution is very consistent.
- 2. The majority of distribution is out of a respirable range.
- 3. As expected, the highest pressure produces the smallest droplet size.
- 4. Droplet size is largely independent of the orifice size. This effect is possibly due to the resin characteristics.
- 5. The amount of droplet sizes under 10 µm ranged from 0.2% to 2.9%. The smaller, 411 nozzle at high pressure produced the highest percentage of respirable particles.
- 6. Across all tests, the lowest Dv(10) is 27.4 μm --this means that in the measured "worst case", only 10 percent of the droplets were smaller than 27.4 μm .

These measurement support a conclusion that even in DIY spray coating, there will not be significant exposure to respirable droplets.

As stated above, does not plan to promote for DIY applications. The resin is intended to be used in paints for high-performance industrial and commercial applications. Using them in DIY market is not expected because:

- is a high-end, high-priced product. It provides specific properties, such as corrosion protection, chemical and UV resistance. These properties are critical for its use on outdoor structures subject to harsh conditions (ships, marine oil rigs).
- is limited to use in solvent-borne paints.
- Expected price point \$20-25/kg, compared to \$4-6/kg price of binders in paints for consumer use.